



Document Purpose

This document is an addendum to the overarching Okeanos Explorer FY11 Data Management Plan (EX_FY11_DMP.doc) and is specific to the EX-11-05 mission entitled “Field Trials of EM302 Multibeam Sonar Water Column Backscatter” For more detailed information on the data management effort for the Okeanos Explorer in FY11, please refer to that document.

Data Management Overview

The fifth *Okeanos Explorer (EX)* mission of the FY11 field season will take the ship from Key West, Florida to Pascagoula, MS. During EX-11-05, the Okeanos will utilize its state-of-the-art Kongsberg EM302 multibeam survey system and its newly acquired EK60 echosounder to map several known water column targets (i.e. naturally occurring seeps) in the Gulf of Mexico. During a portion of the mission, the NOAA Ship Pisces will work collaboratively with the Okeanos with its ME70 fisheries multibeam sonar that was used during the Deepwater Horizon response but is known to produce narrower swath coverage. The resulting data from each vessel will be compared. The primary objective is to determine the EM302's efficacy in detecting naturally occurring seeps.

As one of the secondary objectives, participating scientists have agreed to consider deploying a CTD equipped with dissolved oxygen and fluorometer sensors over a detected seep within 100 miles of the DWH wellhead. This data would provide scientists working on the DWH response with a valuable reference in working with the CTD data recorded in the Gulf of Mexico in response to the DWH Oil Spill event. The EX has a new Dissolved Oxygen sensor for its CTD. The loan of a fluorometer from AOML in Miami is being coordinated and the expedition coordinator is investigating the feasibility of adding the additional sensors to the EX CTD.

Assumptions

All data from the entire mission will be publicly releasable. No protected sites have been identified.

EX-11-05: Field Trials of EM302 Multibeam Sonar Water Column Backscatter (August 22 – September 10, 2011)

Data Management Objectives

The DMT's objectives for this mission are:

- Develop ISO metadata for collection-level and dataset-level records (multibeam, singlebeam sonar, XBT, CTD, EX METOC, Pisces METOC, Pisces singlebeam sonar) for NOAA.
- Ensure the near real-time update of the *Okeanos Atlas* with
 - Data layers as contextual data to the display, including primary operating area, planned survey boundaries, and any other appropriate data layers found.
 - Ship track and hourly observations received via email.

Okeanos Explorer Data Management Plan: EX-11-05

- Daily logs pulled from URI through RSS feeds and links to related images on oceanexplorer.noaa.gov website.
 - Daily cumulative bathymetric image overlays received via URI SRS.
 - Ship track and METOC sensor data from the NOAA Ship Pisces. (TBD)
 - Daily processed sonar coverage from the Pisces ME70 (TBD)
- Post-Mission:
 - Execute multibeam and oceanographic data pipelines.

Expedition Principals for Data Management

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